

From the INTERNATIONAL BUREAU

**PCT**

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II  
OF THE PATENT COOPERATION TREATY)  
(PCT Rules 116b, 11c and 72.2)

To:

YOSHITAKE, Kenji  
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Room 323, Fuji Bldg.



Date of mailing (day/month/year)

18 January 2007 (18.01.2007)

Applicant's or agent's file reference

152573-283

**IMPORTANT NOTIFICATION**

International application No.

PCT/JP2005/005100

International filing date (day/month/year)

22 March 2005 (22.03.2005)

Applicant

TOSHIBA KIKAI KABUSHIKI KAISHA et al

## 1. Transmittal of the translation to the applicant.



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

## 2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of this translation have been transmitted to the following designated or elected Offices, requiring such translation:

EP, KR

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of this translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BE, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, ES, FI, GE, GD, GE, GR, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, UK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SI, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

## 3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

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TRANSLATION

## PATENT COOPERATION TREATY

## PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 10)

Applicant's or agent's identification <b>152878-283</b>		FOR FURTHER ACTION	See Form PCT/ISA/415																
International application No. <b>PCT/JP2005/005100</b>	International filing date (day/month/year) <b>22.03.2005</b>	Priority date (day/month/year) <b>22.03.2004</b>																	
International Patent Class. Division (IPC), or national classification and IPC <b>C23C28/00, B22C1/00, B22C9/06, B22D17/22, C23C24/08</b>																			
Applicant <b>TOSHIBA KIKAI KABUSHIKI KAISHA</b>																			
<p>1. This report is the international preliminary examination report established by this International Preliminary Examining Authority under Article 33 and transmitted to the applicant according to Article 36.</p> <p>2. This KI "CORE" consists of a total of <u>4</u> sheets, including the cover sheet.</p> <p>3. This report is also accompanied by ANEXES comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been accepted and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.10 and Section 804 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in Item 4 of Box No. I and the Supplemental Key.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic variant(s)) _____, containing a sequence listing and/or other related items, in computer-readable form only, as indicated in the Supplemental Box Relating to Sequence Listing type Section 804 of the Administrative Instructions.</p> <p>4. This report contains information relating to the following items:</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/> Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/> Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/> Box No. III</td> <td>State of the art of the invention</td> </tr> <tr> <td><input type="checkbox"/> Box No. IV</td> <td>Novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input checked="" type="checkbox"/> Box No. V</td> <td>Reasoned statement under Article 32(2) with regard to novelty, inventive step or industrial applicability, objections and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/> Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/> Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/> Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>				<input checked="" type="checkbox"/> Box No. I	Basis of the report	<input type="checkbox"/> Box No. II	Priority	<input type="checkbox"/> Box No. III	State of the art of the invention	<input type="checkbox"/> Box No. IV	Novelty, inventive step and industrial applicability	<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 32(2) with regard to novelty, inventive step or industrial applicability, objections and explanations supporting such statement	<input type="checkbox"/> Box No. VI	Certain documents cited	<input type="checkbox"/> Box No. VII	Certain defects in the international application	<input type="checkbox"/> Box No. VIII	Certain observations on the international application
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Date of submission of the demand		Date of completion of this report																	
Name and mailing address of the IPRA/OP		Authorized officer																	
Telephone No.		Telephone No.																	

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2005/005100

Box No. 1	Items of the report
1.	<p>With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.</p> <p><input type="checkbox"/> This report is based on a translation by the original language into the following language _____ which is the language of a translation furnished for the purposes of:</p> <p><input type="checkbox"/> international search (Rule 12.5 and 23.1(b))</p> <p><input type="checkbox"/> publication of the international application (Rule 11.1)</p> <p><input type="checkbox"/> international preliminary examination (Rule 35.1 and/or 35.3)</p> <p>With regard to the contents of the international application, this report is based on replacement sheets which have been put into the machine <i>after</i> its response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report.</p> <p><input checked="" type="checkbox"/> the international application as originally filed contains:</p> <p><input type="checkbox"/> the description:</p> <p>part _____ as originally furnished</p> <p>pages _____ received by this Authority on _____</p> <p>pages _____ received by this Authority on _____</p> <p><input type="checkbox"/> the claims:</p> <p>no _____ as originally furnished</p> <p>no _____ as amended together with any statement under Article 19</p> <p>no _____ received by this Authority on _____</p> <p>no _____ received by this Authority on _____</p> <p><input type="checkbox"/> the drawings:</p> <p>draws _____ as originally furnished</p> <p>draws _____ received by this Authority on _____</p> <p>draws _____ received by this Authority on _____</p> <p><input type="checkbox"/> a sequence listing and/or any related tables - see Supplemental Form Relating to Sequence Listing.</p>
2.	<p><input type="checkbox"/> The amendments have resulted in the cancellation of:</p> <p><input type="checkbox"/> the description, pages _____</p> <p><input type="checkbox"/> the claims, no. _____</p> <p><input type="checkbox"/> the drawings, sheet(s) _____</p> <p><input type="checkbox"/> the sequence listing (specify) _____</p> <p><input type="checkbox"/> any tables related to a sequence listing (specify) _____</p>
3.	<p><input type="checkbox"/> This report has been reinitiated as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to so to find the disclosure as filed, as indicated in the Supplemental Form (Rule 36.1):</p> <p><input type="checkbox"/> the description, pages _____</p> <p><input type="checkbox"/> the claims, no. _____</p> <p><input type="checkbox"/> the drawings, sheet(s) _____</p> <p><input type="checkbox"/> the sequence listing (specify) _____</p> <p><input type="checkbox"/> any tables related to a sequence listing (specify) _____</p>

*None of the items above may be omitted or superseded.*

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2005/005100

Box No. V Reasoned Assertion under Article 35(2) with regard to novelty, inventive step or industrial applicability:  
 citations and explanations supporting each statement

1. Assertions

Novelty (N)	Claims 1-13	YES
	Claims	NO
Inventive step (S)	Claims 2, 3, 6, 7, 10-12	YES
	Claims 1, 4, 5, 8, 9	NO
Industrial applicability (IA)	Claims 1-13	YES
	Claims	NO

2. Citations and explanations (Rule 70(7))

The following documents are cited in the international search report.

Document 1: JP 03-229637 A (Kobe Steel, Ltd.), 10 September 1996, paragraphs [0010] to [0024]  
 Document 2: JP 2001-300711 A (Olympus Optical Co., Ltd.), 30 October 2001, paragraph [0002]  
 Document 3: JP 2001-112520 A (Toshiba Machine Co., Ltd.), 14 December 2001, paragraphs [0068] to [0017]

The inventions set forth in claims 1, 4, 5, 8 and 9 do not involve an inventive step in the light of documents 1 to 3 cited in the international search report.

In the written response dated 20 January 2006, the applicant asserts that the inventions set forth in the present application have a structure wherein a portion of each TiC particle is exposed.

However, claims 1, 4, 5, 8 and 9 only stipulate that the TiC particles be bonded in particulate form, and do not stipulate that the inventions set forth therein have a structure wherein a portion of each TiC particle

Box No. 1

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

is exposed.

Furthermore, the oxide particles that are included on the surface layer side of the plated film in the invention disclosed in document 1 can be said to be beaded in particulate form.

On the other hand, the inventions set forth in claims 1, 3, 6, 7 and 10 to 13 are not disclosed in any of the documents that are cited in the international search report, and would not have been obvious to a person skilled in the art.